METHOD AND APPARATUS FOR IDENTIFYING AND ACQUIRING PREFERRED WIRELESS COMMUNICATIONS SYSTEMS

ABSTRACT

[0050] In a mobile station having an acquired wireless communications system, the mobile station performs preliminary searches for more desirable wireless communications systems in between paging channel and quick paging channel assigned slots, while successfully monitoring the mobile station's assigned slots. The mobile station then analyzes the preliminary search results and attempts to acquire the more desirable wireless communications systems that meets preliminary search criteria. The mobile station includes a communications transceiver that facilitates wireless communications with a local base station and processing circuitry adapted to control a slotted operation mode of the mobile station. The processing circuitry is adapted to instruct the communications transceiver to listen for incoming messages from the acquired communications system during slot modes and listen for candidate communications systems during slot-off modes. The preliminary searches include performing tests on the signal received on a candidate communications system channel. The tests may include measuring the signal strength, calculating the ratio $E_{\rm c}/I_{\rm o}$ and demodulating a synchronization signal.